

Please amend the remaining claims as follows:

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1. (Amended) A method for polishing an object by using an abrading surface made of abrasive particles and a binder, said method comprising:

polishing said object by supplying a liquid not containing any abrasive particles for a determined time period; and

further polishing said object by supplying abrasive particles so as to perform additional removal of a surface material to uniformly remove a specific film thickness.

2. (Amended) A method according to claim 1, wherein said additional removal of a surface material is performed with said abrading surface by supplying a slurry containing abrasive particles to said surface to be polished.

3. (Amended) A method according to claim 1, wherein said additional removal of a surface material is performed by:

polishing while concurrently dressing said abrading surface with a liquid not containing abrasive particles to thereby generate free abrasive particles therefrom.

4. (Amended) A method according to claim 1, wherein said additional removal of a surface material is performed by:

polishing using a polishing cloth and a slurry containing abrasive particles.

5. (Amended) A polishing apparatus for polishing a surface of an object, said apparatus comprising:

a holder for holding said object;

an abrading surface comprising abrasive particles and a binder;

a mechanism for pressing said surface of said object to said abrading surface while producing a sliding motion over a polishing interface;

a device for supplying a liquid not containing abrasive particles to said polishing interface;
and

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a surface material removal device for performing additional material removal by supplying
abrasive particles, said device integrally mounted in said polishing apparatus.

7. (Amended) An apparatus according to claim 5, wherein said surface material
removal device is a device for dressing said abrading surface so as to release abrasive particles
from said abrading surface.

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Please add the following new claims:

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54. A method for polishing an object using an abrading surface made of abrasive
particles and a binder binding said abrasive particles, said method comprising:
dressing said abrading surface to shape said abrading surface by a dresser prior to a
polishing process;
pressing the object against said abrading surface; and
polishing the object by making a sliding motion between a surface of the object and said
abrading surface.

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55. A method according to claim 54, wherein a surface roughness of said abrading
surface is less than $\pm 30 \mu\text{m}$ after said dressing process.

56. A method according to claim 54, wherein said abrading surface is a surface of an
abrading plate which is shaped by pressing in a container in a manufacturing process of the same.

57. A method according to claim 54, wherein a ratio of said abrasive particles and the
binder material is 1:x, where x is not less than 0,5 by volume (the binder material per 1 unit of the
abrasive particles is not less than 0,5 unit), and proportions of said abrasive particles, said binder,
and porosity are, respectively, not less than 10%, not more than 60% and 10-40% by volume.

58. A method according to claim 54, wherein said dressing process is conducted under supplying water.

59. A method according to claim 54, wherein said dresser comprises diamond particles.

60. A method according to claim 59, wherein said diamond particles are electro-deposited in a nickel base.

61. A method according to claim 54, wherein said dressing process further comprises removing residual particles from the dressed abrading surface.

62. A method according to claim 61, wherein said removing process comprises pressing and rotating a flat tool against said abrading surface.

63. A method according to claim 61, wherein said flat tool comprises a blanket wafer, a quartz glass substrate, or a ceramic substrate.

64. A method according to claim 61, wherein said removing process comprises washing said abrading surface using a brush while flowing a liquid.

65. A method according to claim 61, wherein said removing process comprises applying a pressured fluid on said abrading surface.

66. A method according to claim 65, wherein said pressure of fluid is less than 5 kgPa.

67. A method according to claim 61, wherein said removing process comprises applying ultrasonic fluid on said abrading surface.

68. A method for polishing an object using an abrading surface made of abrasive particles and a binder binding said abrasive particles, said method comprising:

dressing said abrading surface by a dresser prior to a polishing process until a surface roughness of said abrading surface is less than $\pm 30\mu\text{m}$; and

pressing the object against said abrading surface and polishing the object by making a sliding motion between a surface of the object and said abrading surface.

69. A method according to claim 68, wherein said dresser comprises a diamond dresser which size of diamond particles is #100.

70. A method according to claim 68, wherein said dressing process is conducted by pressing said dresser with a pressure of less than 100g/cm^2 .

71. A method for polishing an object using an abrading surface made of abrasive particles and a binder binding said abrasive particles, said method comprising:

dressing said abrading surface by a dresser;

pressing the object against said abrading surface and polishing the object by making a sliding motion between a surface of the object and said abrading surface, wherein a pressure between said abrading surface and said dresser is less than 100g/cm^2 .

72. A method according to claim 71, wherein said pressure of said dressing is less than 50g/cm^2 .

73. A method according to claim 71, wherein said dresser comprises a diamond dresser which size of diamond particles is #200.

74. A method for polishing an object using an abrading surface made of abrasive particles and a binder binding said abrasive particles, said method comprising:

polishing the surface of the object by pressing the object against said abrading surface and making a sliding motion between a surface of the object and said abrading surface; and

dressing said abrading surface by a dresser during said polishing process to generate free abrasive particles from said abrading surface.

75. A method according to claim 74, wherein said polishing process comprises a first stage polishing which is conducted without dressing, and a second stage polishing which is conducted with dressing.

76. A method according to claim 74, wherein said polishing operation is conducted while supplying a liquid not containing abrasive particles.

77. A method for polishing an object having raised and depressed pattern thereon, said method comprising:

pressing the object against an abrading surface comprising abrasive particles and a binder binding said abrasive particles;

polishing the surface of the object by making a sliding motion between a surface of the object and said abrading surface; and

supplying a liquid including buffer solution during said sliding motion.

78. A method for polishing an object having raised and depressed pattern thereon, said method comprising:

pressing the object against an abrading surface comprising abrasive particles and a binder binding said abrasive particles;

polishing the surface of the object by making a sliding motion between a surface of the object and said abrading surface; and

supplying a liquid including surface activator during said sliding motion.

79. A method for polishing an object having raised and depressed pattern thereon, said method comprising:

pressing the object against an abrading surface comprising abrasive particles and a binder binding said abrasive particles;

polishing the surface of the object by making a sliding motion between a surface of the object and said abrading surface; and

supplying a liquid including oxidizing solution during said sliding motion.

80. A method for polishing an object having raised and depressed pattern thereon, said method comprising:

pressing the object against an abrading surface comprising abrasive particles and a binder binding said abrasive particles;

polishing the surface of the object by making a sliding motion between a surface of the object and said abrading surface; and

supplying a liquid including reducing solution during said sliding motion.

81. A method for polishing an object having raised and depressed pattern thereon, said method comprising:

pressing the object against an abrading surface comprising abrasive particles and a binder binding said abrasive particles;

polishing the surface of the object by making a sliding motion between a surface of the object and said abrading surface; and

supplying a liquid including electrolytic ionized water during said sliding motion.

82. An apparatus for polishing an object using an abrading surface made of abrasive particles and a binder binding said abrasive particles, said apparatus comprising:

a holder for holding the object;

a mechanism for pressing the object against said abrading surface and making a sliding motion between a surface of the object and said abrading surface, and

a dresser for dressing said abrading surface prior to a polishing process to shape said abrading surface.

83. An apparatus according to claim 82, wherein a surface roughness of said abrading surface is less than $\pm 30\mu\text{m}$ after said dressing process.

84. An apparatus according to claim 82, wherein said abrading surface is a surface of an abrading plate which is shaped by pressing in a container in a manufacturing process of the same.

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85. An apparatus according to claim 84, wherein a ratio of said abrasive particles and the binder material is 1:x, where x is not less than 0,5 by volume (the binder material per 1 unit of the abrasive particles is not less than 0,5 unit), and proportions of said abrasive particles, said binder, and porosity are, respectively, not less than 10%, not more than 60% and 10-40% by volume.

86. An apparatus according to claim 82, further comprising a device for supplying water during said dressing process.

87. An apparatus according to claim 82, wherein said dresser comprises diamond particles.

88. An apparatus according to claim 87, wherein said diamond particles are electro-deposited in a nickel base.

89. An apparatus according to claim 82, further comprising a residual particles removing device for removing residual particles from the dressed abrading surface.

90. An apparatus according to claim 89, wherein said removing device comprises a flat tool for pressing and rotating against said abrading surface.

91. An apparatus according to claim 90, wherein said flat tool comprises a blanket wafer, a quartz glass substrate, or a ceramic substrate.

92. An apparatus according to claim 89, wherein said removing device comprises a brush for washing said abrading surface while flowing a liquid.

93. An apparatus according to claim 89, wherein said removing device comprises a pressured fluid ejector for applying a pressured fluid on said abrading surface.

94. An apparatus according to claim 93, wherein said pressure of fluid is less than 5 kgPa.

95. An apparatus according to claim 89, wherein said removing device comprises an ultrasonic source for applying an ultrasonic energy to a fluid on said abrading surface.

96. An apparatus for polishing an object using an abrading surface made of abrasive particles and a binder binding said abrasive particles, said apparatus comprising:
a holder for holding the object;
a mechanism for pressing the object against said abrading surface and making a sliding motion between a surface of the object and said abrading surface; and
a dresser for dressing said abrading surface;

wherein a pressure applied by said dresser against said abrading surface is less than 100g/cm².

97. An apparatus according to claim 96, wherein said pressure of said dresser is less than 50g/cm².

98. An apparatus according to claim 97, wherein said dresser comprises a diamond dresser which size of diamond particle is #200.

99. An apparatus for polishing an object using an abrading surface made of abrasive particles and a binder binding said abrasive particles, said apparatus comprising:
a holder for holding the object;
a mechanism for polishing the surface of the object by pressing the object against said abrading surface and making a sliding motion between a surface of the object and said abrading surface;
a dresser for dressing said abrading surface by a dresser during said polishing process to generate free abrasive particles from said abrading surface.

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100. An apparatus according to claim 99, further comprising a controller for sending a signal switching a first stage polishing which is conducted without dressing, and a second stage polishing which is conducted with dressing.

101. An apparatus according to claim 99, wherein said polishing operation is conducted while supplying a liquid not containing abrasive particles.

102. A method according to claim 1, wherein said object is a semiconductor wafer having raised and depressed pattern thereon.

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Conclusion*

103. A method according to claim 1, wherein said object is held by a same holder during said polishing and said further polishing.

104. An apparatus according to claim 5, wherein said abrading surface comprises a surface of an abrading plate.